III. AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to Figs. 6 and 7. This sheet, which includes Figs. 6 and 7, replaces the original sheet including Figs. 6 and 7.

In Figure 6, reference signs 600, 602 and 604 mentioned on page 20 of the description have been added to the drawing. In Figure 7, reference signs 700, 702, 704 and 706 mentioned on page 20 of the description have been added to the drawing.

Attachment: Replacement Sheet
                  Annotated Sheet Showing Changes

IV. REMARKS / ARGUMENTS

A. Summary of Amendments

In the specification, a couple of paragraphs have been amended to correct minor informalities detected by the Examiner.

In the drawings, Figures 6 and 7 have been amended to correct minor informalities identified by the Examiner.

The application now contains 37 claims.

Former claims 1-48 have been cancelled from the application, without prejudice or disclaimer.

New claims 49-85 have been added to the application.

The Applicant respectfully submits that support for the subject matter of new claims 49-85 exists in the specification as originally filed and that no new matter has been added to the application by the present amendment. More specifically, support for the subject matter of new claims 49-85 may be found in the original claims 1-48, as well as in the description at page 7, lines 15-23; page 8, lines 10-21; page 12, line 12 to page 14, line 25; and page 16, lines 1-32.

B. Summary of Objections and Reply

Specification

On page 3 of the Office Action, the Examiner has identified a couple of informalities in the disclosure. In response, the Applicant has amended the specification to correct the informalities identified on pages 8 and 17.

In light of the foregoing, the Applicant believes that the Examiner's objections to the specification have all been addressed and overcome.

Drawings

The Examiner has also objected to the drawings under 37 C.F.R. 1.84(p)(5) due to certain informalities. More specifically, the Examiner has objected to Figures 6 and 7, since reference signs "600", "602" and "604" are missing from Figure 6, while reference signs "700", "702", "704" and "706" are missing from Figure 7. In response, the Applicant submits herewith amended Figures 6 and 7, in which the missing reference signs have been added in accordance with the Examiner's suggestion.

In light of the foregoing, the Applicant respectfully submits that the drawings are now in full compliance with 37 C.F.R. 1.84(p)(5).

C. Summary of Rejections and Reply

In the Office Action, the Examiner has rejected former claims 1-7, 10, 15-21, 24, 40-42 and 48 under 35 USC §102(b) as being anticipated by U.S. Patent No. 5,596,993 (hereinafter Oriol et al.).

The Examiner has also raised several different rejections of the former dependent claims of the present application under 35 USC §103(a), as follows:

- claims 8, 9, 22 and 23 as being unpatentable over Oriol et al. in view of U.S. Patent No. 4,976,692 (hereinafter Atad);
- claims 11 and 25 as being unpatentable over Oriol et al. in view of U.S. Patent No. 6,024,701 (hereinafter Almog);
- claims 12, 13, 26 and 27 as being unpatentable over Oriol et al. in view of U.S. Patent No. 5,636,870 (hereinafter Enhorning);
- claims 14 and 28 as being unpatentable over Oriol et al. in view of U.S. Patent No. 5,431,171 (hereinafter Harrison et al.).

The Applicant respectfully submits that the subject matter of new claims 49-85 is patentably distinguishable over the cited prior art, as discussed below.

Claims 49 and 72

The Examiner's attention is directed to the following highlighted features of new independent claims 49 and 72:

49. A process for monitoring an obstetrics patient, said process comprising:
    a) providing a user interface control operable by a user, the user interface control allowing the user to input information on a status of a health characteristic of the obstetrics patient, the status of the health characteristic being associated with a probability of a certain outcome;
    b) **accessing a database in response to the user inputting information on the status of the health characteristic via the user interface control, the database mapping either one of different possible statuses of the health characteristic or different possible probabilities of the certain outcome to respective actions for causing a change in the probability of the certain outcome;**
    c) **identifying in the database a particular action for causing a change in the probability of the certain outcome at least in part on a basis of the information input by the user;**
    d) conveying data indicative of the particular action to the user via a display.

72. An apparatus for monitoring an obstetrics patient, said apparatus comprising:
    a) an input for receiving a signal conveying information on a status of a health characteristic of the obstetrics patient, the status of the health characteristic being associated with a probability of a certain outcome;
    b) a processing unit coupled to said input, said processing unit being operative to:
        i. **access a database in response to receipt of said signal at said input, the database mapping either one of different possible statuses of the health characteristic or different possible probabilities of the certain outcome to respective actions for causing a change in the probability of the certain outcome;**
        ii. **identify in the database a particular action for causing a change in the probability of the certain outcome at least in part on a basis of the information conveyed by said signal;**
    c) an output for releasing data indicative of said particular action.

The Applicant respectfully submits that the subject matter of new independent claims 49 and 72 is neither anticipated nor rendered obvious by the cited prior art. Without limiting the generality of the foregoing, the Applicant submits that the above-emphasized features of claims 49 and 72 are neither taught nor suggested by Oriol et al., whether taken alone or in combination with one of Atad, Almog, Enhorning and Harrison et al. More specifically, none of Oriol et al.,

Atad, Elmog, Enhorning and Harrison et al. teach or suggest a process for monitoring an obstetrics patient that includes **accessing a database in response to the receipt of information on a status of a heath characteristic of the patient,** where the status of the health characteristic is associated with a probability of a certain outcome and **the database maps either one of different possible statuses of the health characteristic or different possible probabilities of the certain outcome to respective actions for causing a change in the probability of the certain outcome.** It follows that the cited prior art references do not teach or suggest **identifying in the database a particular action for causing a change in the probability of the certain outcome** on a basis of the received information on the status of the health characteristic.

Oriol et al. is directed to a complex fetal data processing system and method for monitoring the condition of a fetus. Specifically, a fetal heart rate time series is received from a fetal heart monitor, sampled and analyzed in both time and frequency domains for detecting transient changes in fetal heart rate and fetal heart rate variability. The heart rate time series, in addition to other received data (such as a time-frequency representation, area calculations, a uterine contraction signal and a fetal movement signal), is compiled into a feature vector. This feature vector is analyzed by an expert subsystem (that includes classifiers and modules that are either rule-based or neural network-based) to make an assessment of fetal condition and well-being. The data generated during this analysis is formatted and presented on a system display, and includes a prediction of fetal well being and recommendations/warnings.

The complexity of the system disclosed by Oriol et al. teaches away from the simplicity of the invention claimed in claims 49 and 72. In Oriol et al., when health characteristic data is received, this data undergoes sampling, compilation into a feature vector, classification and further processing, prior to being able to assess the fetal condition and output the prediction of fetal well being and the recommendations/warnings. This is clearly in contrast to, and precludes, (1) *accessing a database in response to the receipt of health characteristic data,* where this database *maps either one of different possible statuses of the health characteristic or different possible probabilities of a certain outcome to respective actions for causing a change in the probability of the certain outcome;* and (2) *identifying in the database a particular action* on a basis of the received health characteristic data.

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The Applicant also submits that, while Atag, Almog, Enhorning and Harrison et al. are all directed to various medical techniques for use with an obstetrics patient, be it a woman in labour or a fetus, none of these patent references mentions or suggests: (1) *accessing a database in response to the receipt of health characteristic data*, where this database *maps either one of different possible statuses of the health characteristic or different possible probabilities of a certain outcome to respective actions for causing a change in the probability of the certain outcome*; and (2) *identifying in the database a particular action* on a basis of the received health characteristic data.

In light of the foregoing, the Applicant respectfully submits that the cited prior art references, whether taken alone or in combination, do not explicitly disclose or implicitly suggest all of the limitations of independent claims 49 and 72. Accordingly, the subject matter of claims 49 and 72 is believed to be both novel and non-obvious over the cited prior art and, as such, in condition for allowance.

Claims 50-65 and 73-76

New claims 50-65 and 73-76 depend directly or indirectly from one of independent claims 49 and 72, and therefore incorporate all of the limitations recited in the respective independent claim, including those features already shown above to be absent from the cited prior art references. Accordingly, dependent claims 50-65 and 73-76 are also believed to be novel and non-obvious over the cited prior art and, as such, in condition for allowance.

Claim 66

The Examiner's attention is directed to the following highlighted features of new independent claim 66:

> 66. A process for monitoring an obstetrics patient, said process comprising:
> a) providing a sensor interface allowing to receive from a sensor unit a signal indicative of a measurement of a health characteristic of the obstetrics patient, the measurement of the health characteristic being associated with a likelihood of a certain outcome;

      b) **accessing a database in response to receipt of the signal from the sensor unit via the sensor interface, the database mapping either one of different possible measurements of the health characteristic or different possible likelihoods of the certain outcome to respective actions for causing a change in the likelihood of the certain outcome;**

      c) **identifying in the database a particular action for causing a change in the likelihood of the certain outcome at least in part on a basis of the measurement of the health characteristic;**

      d) conveying data indicative of the particular action to the user via a display.

The above-emphasized features of new independent claims 66 are similar to the earlier discussed features of independent claims 49 and 72. Accordingly, for the same reasons presented above with regard to new claims 49 and 72, the Applicant respectfully submits that the cited prior art references, whether taken alone or in combination, do not explicitly disclose or implicitly suggest <u>all</u> of the limitations of independent claim 66. Accordingly, the subject matter of claim 66 is also believed to be novel and non-obvious over the cited prior art and, as such, in condition for allowance.

Claims 67-71

New claims 67-71 depend directly or indirectly from independent claim 66, and therefore incorporate all of the limitations recited in the independent claim, including those features already shown above to be absent from the cited prior art references. Accordingly, dependent claims 67-71 are also believed to be in condition for allowance.

Claim 77

The Examiner's attention is directed to the following highlighted features of new independent claim 77:

77. A process for monitoring an obstetrics patient, said process comprising:

      a) providing a user interface control operable by a user, the user interface control allowing the user to input information on health characteristics of the obstetrics patient;

      b) **receiving from the user via the user interface control a measurement of a particular health characteristic of the obstetrics patient, the particular health characteristic being modifiable**, the measurement of the particular health characteristic being associated with a likelihood of a certain outcome;

c) **processing the measurement received from the user to determine an action for causing the particular health characteristic to be modified** such as to cause a change in the likelihood of the certain outcome;

d) conveying data indicative of the determined action to the user via a display.

The Applicant respectfully submits that the subject matter of new independent claim 77 is neither anticipated nor rendered obvious by the cited prior art. Without limiting the generality of the foregoing, the Applicant submits that the above-emphasized features of claim 77 are neither taught nor suggested by Oriol et al., whether taken alone or in combination with one of Atad, Almog, Enhorning and Harrison et al. More specifically, none of Oriol et al., Atad, Elmog, Enhorning and Harrison et al. teach or suggest a process for monitoring an obstetrics patient that includes: (1) <u>receiving from the user via the user interface control a measurement of a particular health characteristic of the obstetrics patient, the particular health characteristic being modifiable</u>, the measurement of the particular health characteristic being associated with a likelihood of a certain outcome; and (2) **processing the measurement received from the user to determine an action for <u>causing the particular health characteristic to be modified</u>** such as to cause a change in the likelihood of the certain outcome.

The fetal data processing system disclosed by Oriol et al. operates mainly on signals received from monitors, sensors or software modules, such as a heart rate time series signal or a contraction signal. As described by Oriol et al. in the description (see col. 11, lines 12-20; col. 17, lines 46-49) and shown in the drawings (see Figure 8), any data input by a user to the system is secondary and may even be preempted by default data (e.g. gestational age). There is certainly no teaching or even suggestion in Oriol et al. that *a <u>user inputs via the user interface</u> a measurement of a particular modifiable health characteristic of the patient*, nor that this measurement is then processed to determine *an appropriate action for causing <u>the particular modifiable health characteristic</u> to be modified*, for causing a change in the likelihood of a certain outcome associated with the particular modifiable health characteristic.

While Atag, Almog, Enhorning and Harrison et al. are all directed to various medical techniques for use with an obstetrics patient, none of these patent references mentions or suggests *processing a measurement of a particular modifiable health characteristic of a patient received from a user via a user interface for determining an appropriate action to cause <u>the</u>*

particular modifiable health characteristic to be modified, thereby causing a change in the likelihood of a certain outcome associated with the particular modifiable health characteristic.

In light of the foregoing, the Applicant respectfully submits that the cited prior art references, whether taken alone or in combination, do not explicitly disclose or implicitly suggest <u>all</u> of the limitations of independent claim 77. Accordingly, the subject matter of claim 77 is believed to be both novel and non-obvious over the cited prior art and, as such, in condition for allowance.

Claims 78-85

New claims 78-85 depend directly or indirectly from claim 77, and therefore incorporate all of the limitations recited in the independent claim, including those features already shown above to be absent from the cited prior art references. Accordingly, dependent claims 78-85 are also believed to be in condition for allowance.

V. CONCLUSION

In view of the above, it is submitted that claims 49-85 are in condition for allowance. Reconsideration of the rejections is requested. Allowance of claims 49-85 at an early date is solicited.

If the application is not considered to be in full condition for allowance, for any reason, the Applicant respectfully requests the constructive assistance and suggestions of the Examiner in drafting one or more acceptable claims pursuant to MPEP 707.07(j) or in making constructive suggestions pursuant to MPEP 706.03 so that the application can be placed in allowable condition as soon as possible and without the need for further proceedings.

Respectfully submitted,

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APPENDIX

Replacement Drawing Sheet 6/6
Annotated Drawing Sheet 6/6
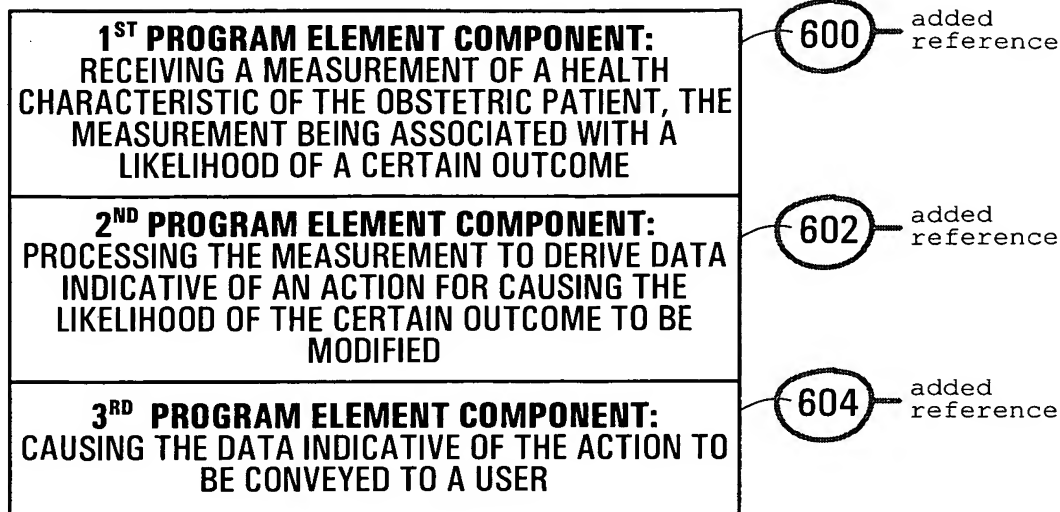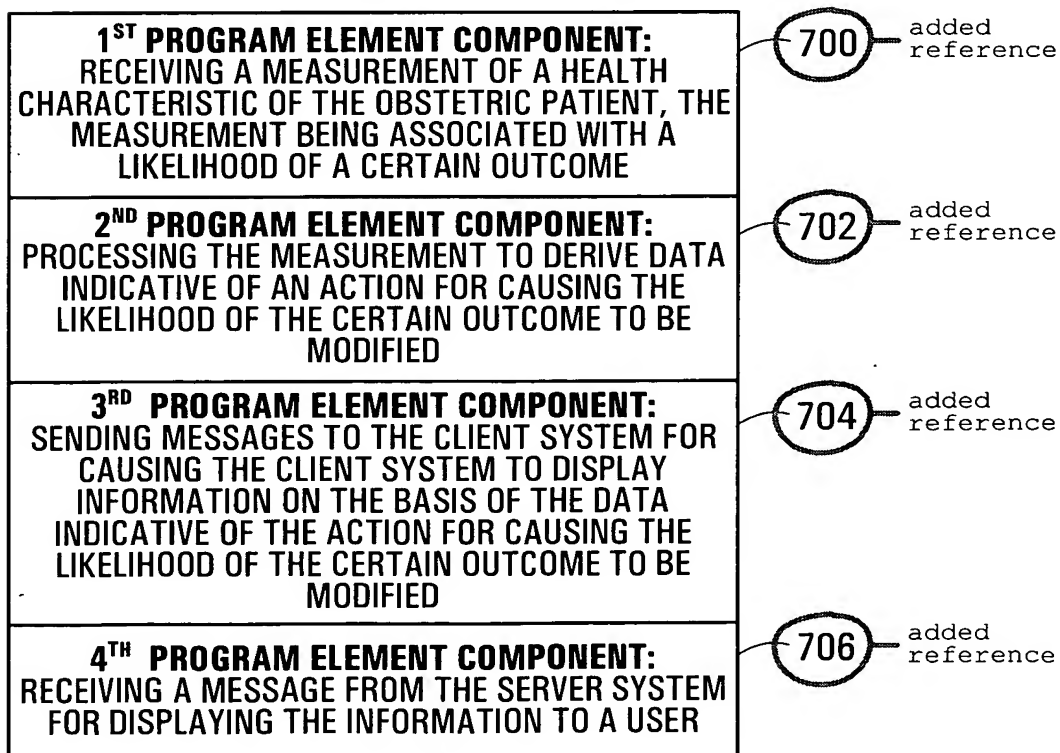
6/6

1ST PROGRAM ELEMENT COMPONENT: RECEIVING A MEASUREMENT OF A HEALTH CHARACTERISTIC OF THE OBSTETRIC PATIENT, THE MEASUREMENT BEING ASSOCIATED WITH A LIKELIHOOD OF A CERTAIN OUTCOME	(600)	added reference
2ND PROGRAM ELEMENT COMPONENT: PROCESSING THE MEASUREMENT TO DERIVE DATA INDICATIVE OF AN ACTION FOR CAUSING THE LIKELIHOOD OF THE CERTAIN OUTCOME TO BE MODIFIED	(602)	added reference
3RD PROGRAM ELEMENT COMPONENT: CAUSING THE DATA INDICATIVE OF THE ACTION TO BE CONVEYED TO A USER	(604)	added reference

Figure 6

1ST PROGRAM ELEMENT COMPONENT: RECEIVING A MEASUREMENT OF A HEALTH CHARACTERISTIC OF THE OBSTETRIC PATIENT, THE MEASUREMENT BEING ASSOCIATED WITH A LIKELIHOOD OF A CERTAIN OUTCOME	(700)	added reference
2ND PROGRAM ELEMENT COMPONENT: PROCESSING THE MEASUREMENT TO DERIVE DATA INDICATIVE OF AN ACTION FOR CAUSING THE LIKELIHOOD OF THE CERTAIN OUTCOME TO BE MODIFIED	(702)	added reference
3RD PROGRAM ELEMENT COMPONENT: SENDING MESSAGES TO THE CLIENT SYSTEM FOR CAUSING THE CLIENT SYSTEM TO DISPLAY INFORMATION ON THE BASIS OF THE DATA INDICATIVE OF THE ACTION FOR CAUSING THE LIKELIHOOD OF THE CERTAIN OUTCOME TO BE MODIFIED	(704)	added reference
4TH PROGRAM ELEMENT COMPONENT: RECEIVING A MESSAGE FROM THE SERVER SYSTEM FOR DISPLAYING THE INFORMATION TO A USER	(706)	added reference

Figure 7